Mount Washington Hazard Mitigation and MVP Planning

Public Info Session

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Goals for Tonight's Meeting

1. Introduce Hazard Mitigation (HM) and Municipal Vulnerability Preparedness (MVP) Planning

2. Review hazards impacting Mount Washington

3. Discuss timeline and next steps

4. Gather input on hazards and infrastructural, societal and environmental vulnerabilities

Hazard Mitigation & Vulnerability Preparedness Plan

HAZARD MITIGATION (HM)

- FEMA
- Reduce loss of life and property by mitigating impact of hazards

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MUNICIPAL VULNERABILITY PREPAREDNESS (MVP)

- MA EOEEA
- Plan and take action to become more resilient to the climate change

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COMBINED HAZARD MITIGATION & MUNICIPAL VULNERABILITY PREPAREDNESS PLAN

Hazards to Consider Evaluating

Inland Flooding

Hurricanes/Tropical Storms

Severe Winter Storm

Drought

Wildfires

Other Severe Weather

Average/Extreme Temperatures

Earthquake

Landslide

Tornadoes

Invasive Species

Vector-Borne Disease

Cyber Security

Shifting Weather Patterns

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What is Happening Now?

Massachusetts Observed Climate Changes

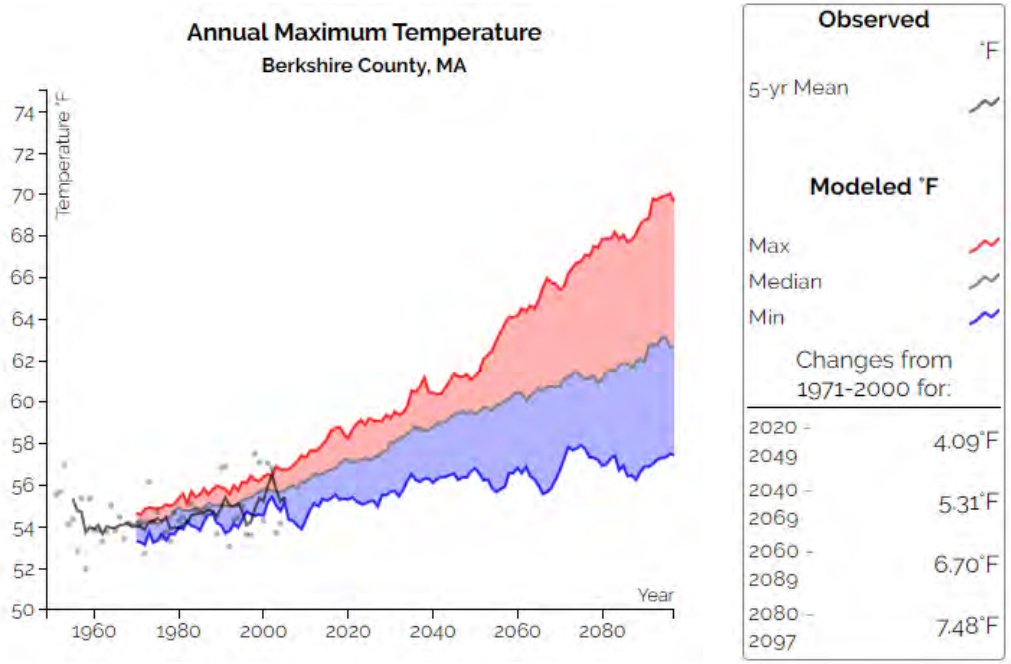
Temperature: ↑ **2.9°F** Since 1895 (Statewide)

Growing Season: ↑ **15 Days** Since 1950

Sea Level Rise: ↑ **11 inches** Since 1922 (Boston)

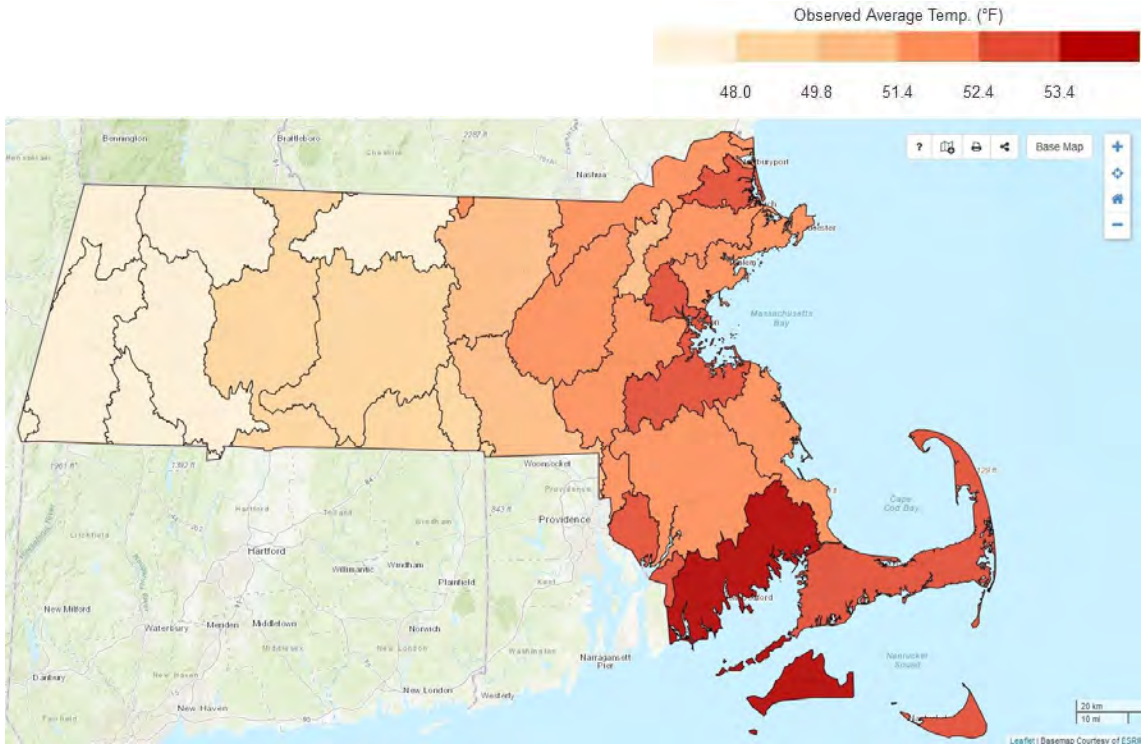
Heavy Precipitation: ↑ **55%** Since 1958

Source: Climate Science Special Report, 2017; NOAA NCEI nClimDiv; NOAA Ocean Service



It’s Getting Hotter

Observed Average Temperature – Fall 1960’s



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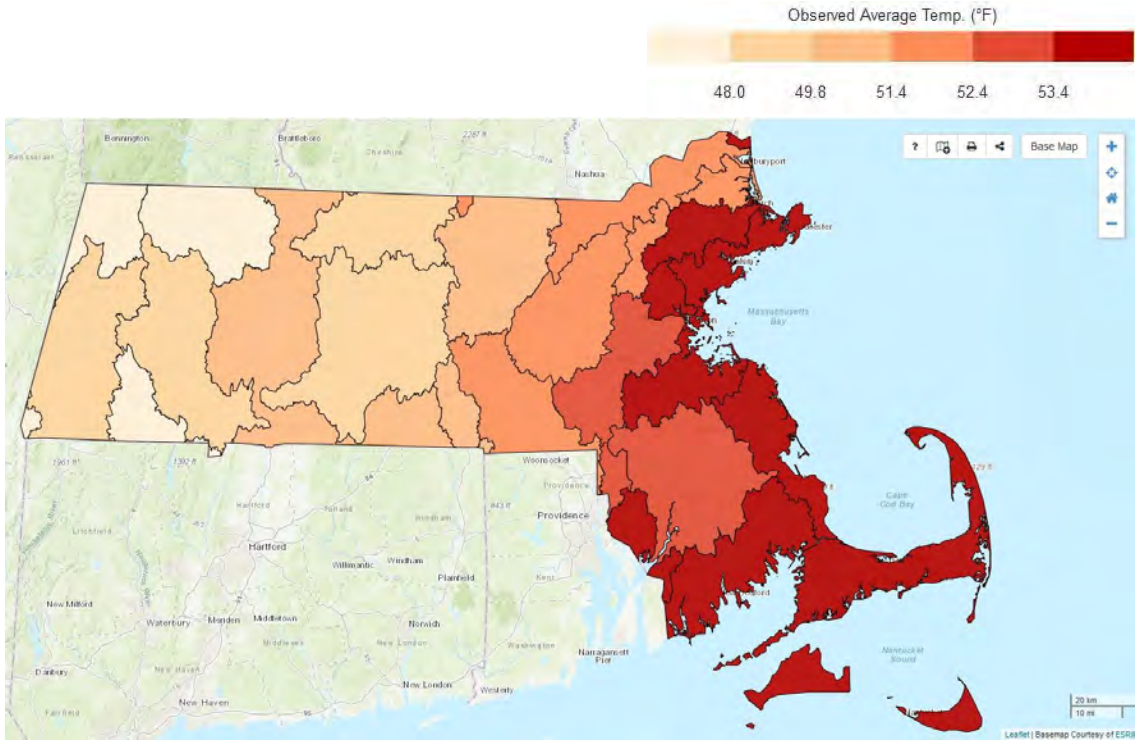


Invasive Species, Pests, & Vector-Born Illnesses

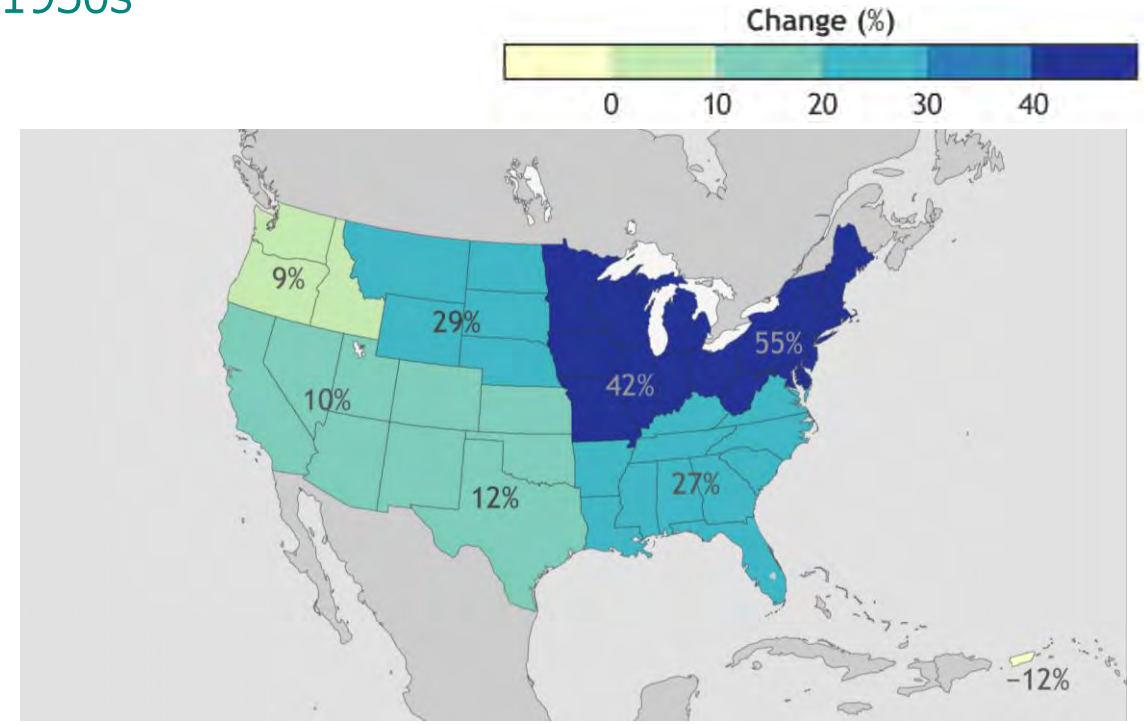
Phragmites, an invasive plant species of wetlands. Photo credit: UMass.

Asian Tiger Mosquito invasive mosquito has recently arrived in Massachusetts and is capable of spreading West Nile Virus, Equine Encephalitis, and numerous other tropical diseases.

- Non-native likely favored by climate change due to ability to adapt easily to new environments and tolerance for extreme, fluctuating, and disturbed conditions
- Extreme weather events due to climate change may increase the dispersal of invasive species to new regions via transportation of seeds, larvae and small animals
- Freezing winter temperatures are critical in limiting outbreaks and expansion of invasive plants and forest pests
- Pests such as ticks and mosquitos better adapted to more temperate and humid environments, more likely to thrive in the longer “shoulder” seasons

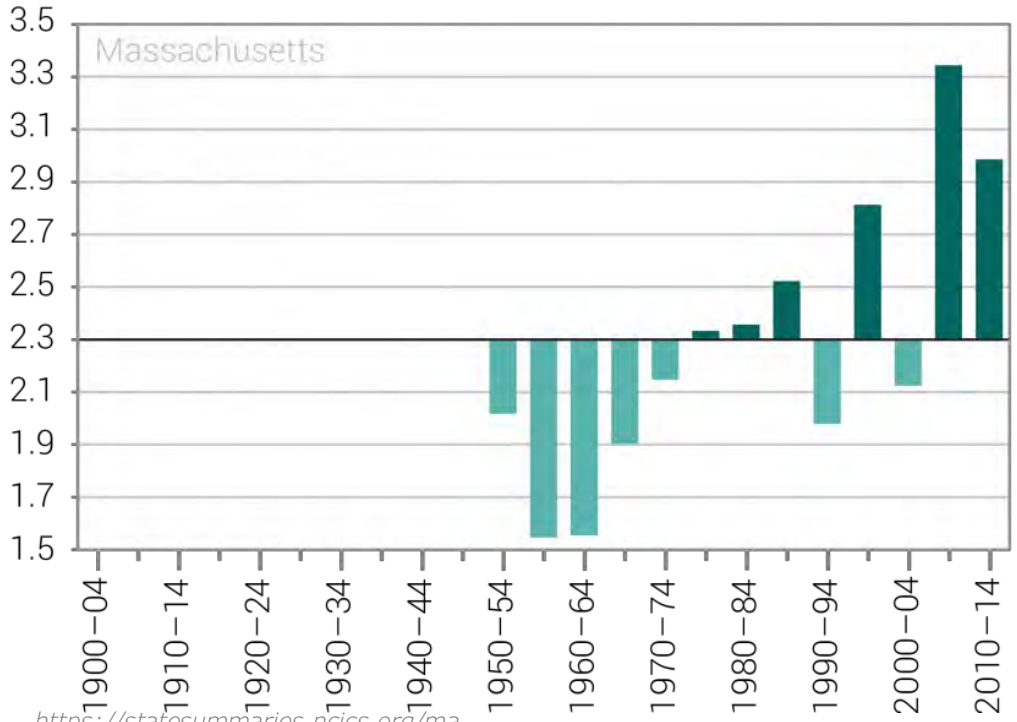
Storms are More Extreme, Frequent, and Lasting Longer

55% Increase in Extreme precipitation since 1950s



Source: NOAA Climate.gov

Increased # of precipitation events since 1970s



https://statesummaries.ncics.org/ma

Stream Flashiness

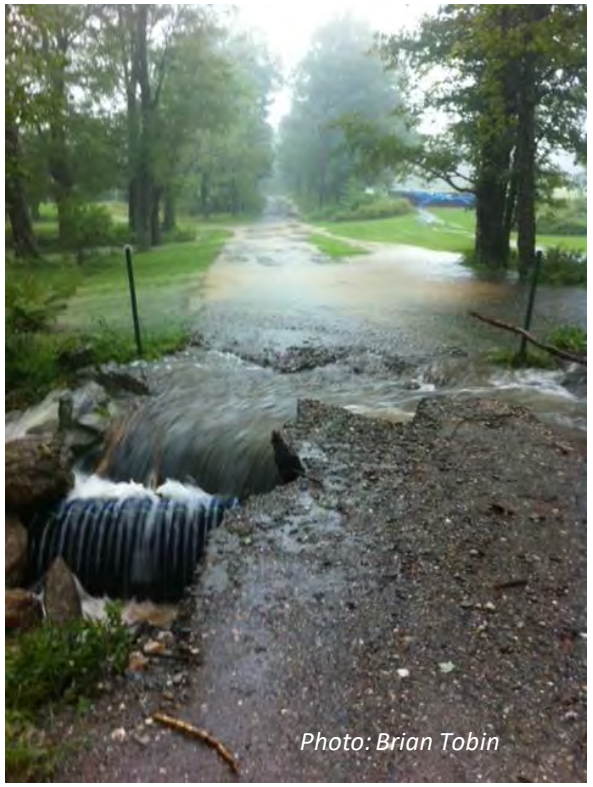
Right Image: Falls Rd. a few days after Hurricane Irene

Right Image: Blown out culvert in Becket, MA.

- Stream flashiness reflects the frequency and rapidity of short term changes in stream flow in response to storm events
- Flashiness can cause:
  - Erosion
  - Loss of aquatic habitat/life
  - Lead to culvert blowout

Flooding

Above Image: A construction project in Lenox washed out completely during a flood in June of 2021.



Right Image: Flash flooding & road washout of East St in Mt. Washington.

- The increasing severity and frequency of storms will lead to more flooding
- Impacts include:
  - Loss of life and property
  - Dam and culvert failures

Changes to Winter Weather

Warmer temperatures lead to...

LESS SNOWPACK

Dryer spring soils

Less groundwater recharge

Increased risk of frozen pipes

MORE RAIN-ON-SNOW EVENTS

Increased runoff

ICE RISKS

Increased ice storms

Increased ice jams

Freeze/Thaw Cycles

- Climate change is already causing an increase in “winter whiplash” -- rapid freeze-thaw cycles, from unusually warm to bitter cold and back again mid-season
- Impacts of an increase in freeze/that cycles include:
  - Change in snow pack quality (icier and harder)
  - Root death: depletion of soil structure and nutrients
  - More potholes: roads that are more expensive to repair

Drought

Springfield Park Bush Fire in April 2017 during the Massachusetts 48-week drought.

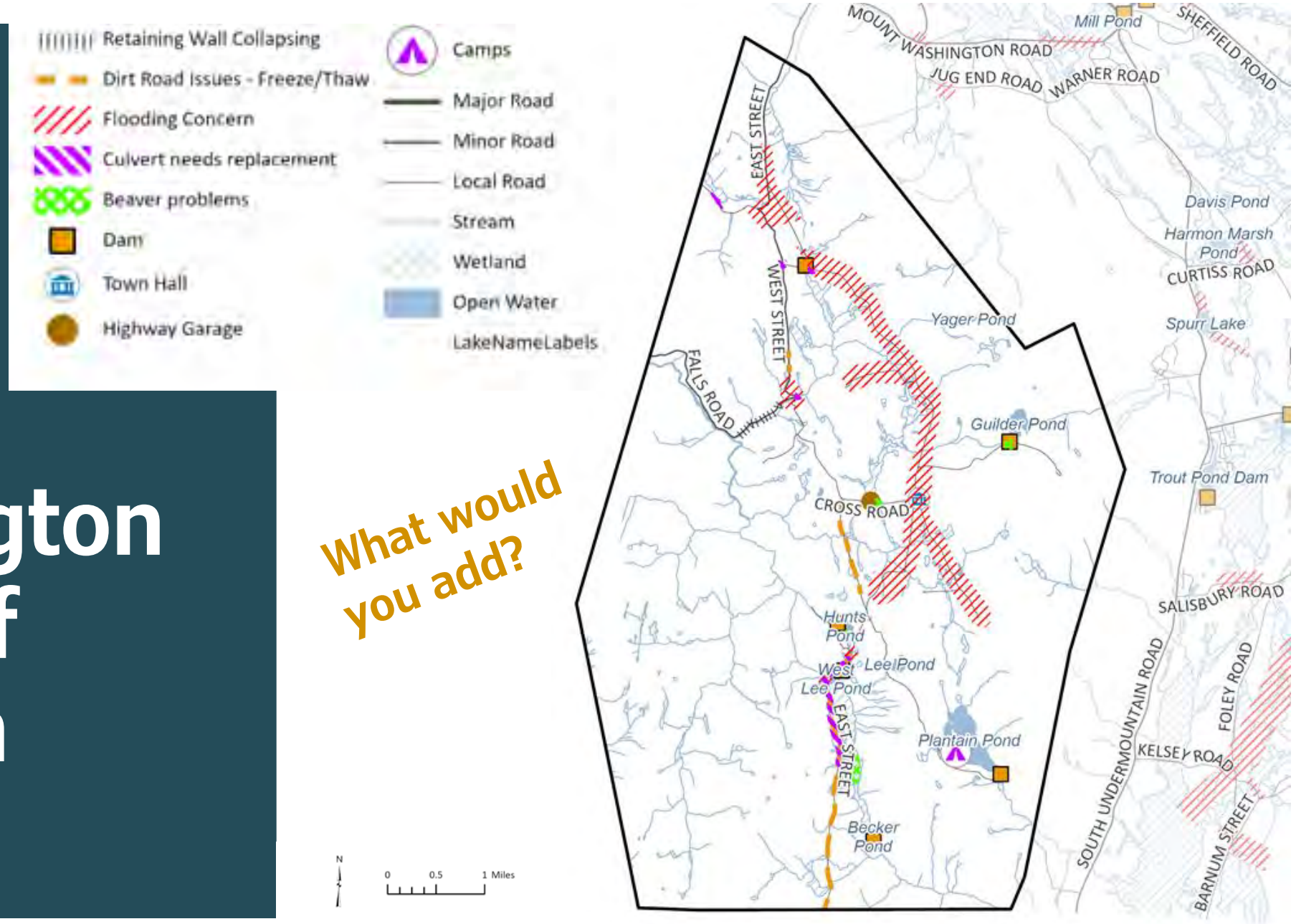
- Despite more intense rain events, the increased temperature evaporates moisture more quickly
- Droughts can:
  - Spark wildfires
  - Lead to toxic algae outbreaks
  - Dry out soils which will decrease plant growth and productivity
  - Reduce water availability and habitat for aquatic species

Hazard Mitigation & MVP Planning Proposed Timeline

Key Elements/Deliverables	Dates (2022)
2 Public Info/Listening Sessions	January & May
Town Wide Workshop (MVP)	April
Public Comment Period on HM/MVP Plan	June
Final Plan Adoption	June

*Opportunities to engage in all of these steps!
Updates will be posted to Town website

Mt. Washington Areas of Concern



Questions & Input

Interested in participating in the process?
Contact Courteny Morehouse at
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www.berkshireplanning.org

Put in your 2 cents through the survey by going to
surveymonkey.com/r/MtWashington